

Kodiak National Wildlife Refuge

Annual Work Plan/Accomplishment Report FY-2007

Refuge purposes and the Refuge vision statement provided the framework for developing the Refuge Comprehensive Conservation Plan goals and objectives which, in turn, guide management of the Refuge. Although not always a perfect fit, the CCP goals and objectives provide a reasonably good way to organize a description of Refuge accomplishments.

Purposes of Kodiak National Wildlife Refuge

On August 14, 1941, President Franklin D. Roosevelt signed Executive Order 8857 establishing Kodiak National Wildlife Refuge A. . . for the purpose of protecting the natural feeding and breeding ranges of the brown bears and other wildlife on Uganik and Kodiak Islands . . .@

Under the Alaska National Interests Lands Conservation Act, the purpose of Kodiak Refuge was expanded beyond that identified in the original establishing order. Section 303(5)(B) of ANILCA states: A The purposes for which the Kodiak National Wildlife Refuge is established and shall be managed include:

- (i) to conserve fish and wildlife populations (and) habitats in their natural diversity including, but not limited to, Kodiak brown bears, salmonids, sea otters, sea lions and other marine mammals and migratory birds;
- (ii) to fulfill the international treaty obligations of the United States with respect to fish and wildlife and other habitats;
- (iii) to provide, in a manner consistent with the purposes set forth in subparagraphs (i) and (ii), the opportunity for continued subsistence uses by local residents; and
- (iv) to ensure, to the maximum extent practicable and in a manner consistent with the purposes set forth in paragraph (i), water quality and necessary water quantity within the refuge.

Refuge Vision Statement

The Kodiak Refuge staff has developed the following statement about what they believe the Refuge will be in the future given the mission of the Refuge System, the specific purposes of Kodiak Refuge, and other relevant Service mandates:

Brown bear, fish, and other wildlife populations will continue to thrive on the Kodiak National Wildlife Refuge in their natural diversity, living in pristine habitats. Refuge management will blend public and private partners in a dynamic alliance that fulfills the purposes and goals of Kodiak Refuge. The Refuge will provide a long and lasting legacy of resource stewardship for the enjoyment of current and future generations.

Refuge Goals, Objectives, and Accomplishments

Goals are broad statements of desired future conditions. Objectives are concise statements of what the Refuge wants to accomplish. Goals 1 through 15 and their accompanying objectives are excerpted from the Refuge CCP. Goal 16 was added by the Refuge Manager to capture the administrative, support, and maintenance activities undertaken by Refuge staff so vital to accomplishing Goals 1 through 15.

Objectives identified for one goal are often applicable to other goals. To avoid unnecessary duplication, each objective is listed only under the goal that represents the clearest connection.

GOAL 1: Increase our knowledge of fish and wildlife populations, their habitats, and their interrelationships. Subsequently, update the inventory and monitoring plan annually with a regional review and sign off by the Alaska Refuge Chief every five years.

- 1.1 Within two years of approval of this plan, complete a step-down plan to integrate and direct inventory and monitoring of plants, fish, and wildlife.

- 1.1.a. Draft wildlife protocols. [LEACOCK, PYLE, ZWIEFELHOFER]

Work deferred to FY 2008 except for Zwiefelhofer, who reported the following:

Prepared historic bald eagle nest and production and coastal harlequin duck survey data for use in statistical analysis contract developed by Joel Reynolds, Regional Biometrician. Analysis of bald eagle data will explore how different sampling designs compare in terms of their efficiency for estimating nests, occupancy and productivity to test accuracy of current sampling protocols. Coastal survey analysis will explore different sampling designs in terms of their efficiency for estimating the frequency of occurrence and mean density for each of the dominant avian species for each survey area as well as basic community summary indices and does the most efficient method detect trends in the summary statistics of interest at different levels of sampling effort and temporal monitoring schedules. (Zwiefelhofer)

- 1.1.b. Complete introduction section. [PYLE]

Work deferred to FY 2008.

- 1.2 Collaborate with the Alaska Department of Fish & Game (ADF&G) when monitoring and conducting research on State of Alaska trust species within the Refuge.

- 1.2.a. Seek collaboration opportunities. [LEACOCK, PATTINSON, PYLE, SAITO, ZWIEFELHOFER]

USGS researchers were assisted with emperor goose capture work in November resulting in the first capture of an emperor goose out of the nesting season. (Zwiefelhofer/Lewis)

WB Zwiefelhofer and WT Maryanski assisted ADF&G, USGS, USFS, and Parks Canada with a Coop black oystercatcher telemetry project deploying 9 VHF radio transmitters that are being monitored on bi-monthly schedule. F&W journal article submitted. (Zwiefelhofer/Maryanski)



Wildlife Biologist Denny Zwiefelhofer authored a manuscript detailing 40 years of Bald eagle nesting surveys on the Refuge published in Journal of Raptor Research.

ADF&G, Alaska Science Center/USGS, USFS, Parks Canada, Migratory Bird Management/USFWS, and Kodiak Refuge initiated cooperative research to determine the regional patterns of migration by black oystercatchers. Deployment of nine VHF radio transmitters on oystercatchers in the Chiniak Bay vicinity adjacent to Kodiak was followed by bi-monthly monitoring of movements. For summary see Fish and Wildlife Journal article in Appendix. (Zwiefelhofer/Maryanski)

The Alaska Science Center, Sea Duck Joint Venture, and Kodiak Refuge continued cooperative research of merganser genetics. A total of 121 common mergansers were captured, banded, and sampled (blood, feathers) in 5 different locations on the refuge. The two recaptures at Karluk Lake suggested relatively low level of fidelity to specific molt sites (e.g., a particular lake). For summary see Fish and Wildlife Journal article in Appendix. (Zwiefelhofer/Maryanski/Saito/Lewis)

Collaborated with ADF&G on bear, deer, and goat surveys. (Leacock/Pyle/Saito)

ADF&G was routinely apprised of survey and research actions taken by refuge staff. (Leacock/Pyle/Saito)

National Marine Mammal Laboratory/NOAA and the Refuge continued cooperative whale research. Five of seven photographed humpback whales also were biopsied and two of nine photographed fin whales were biopsied during winter marine bird and mammal survey. Photo-identification results confirmed that some of these humpback whales consistently seen in Kodiak waters in winters also were observed during the summer in Kodiak or nearby Shumagin Islands. Analysis of fin whale photographs confirmed the extent of their migration based on the presence of scars made by cookie cutter, a species that occurs south of 38° N latitude. For summary see related Fish and Wildlife Journal article in Appendix. (Zwiefelhofer/Lewis)

- 1.3 Curate wildlife study records using professional database-management standards and methods so data and reports may be readily accessed and understood by future Refuge biologists and others.
- 1.3.a. Create Portable Document Files (pdf) of biological publications and final reports and archive these electronic documents on the refuge's network. [LEACOCK, PATTINSON, PYLE, SAITO, ZWIEFELHOFER]
- Completed FY06 annual bald eagle and harlequin duck coastal survey reports and Karluk harlequin nesting study report were archived on refuge network. (Zwiefelhofer)
- Curated biological reports and publications received. Compiled and archived 27 ADF&G reports on commercial, sport, and subsistence fisheries. (Pattinson/Pyle/Zwiefelhofer)
- 1.4 In cooperation with ADF&G, monitor for fish, wildlife, and avian diseases that may affect the Kodiak ecosystem, including chronic wasting disease and West Nile virus.
- WB Zwiefelhofer was notified of results from 2005 harlequin duck samples submitted for avian influenza (University of Alaska – Fairbanks). AI test results indicated approx. 7% of Uyak harlequins testing positive for non-H1N5 avian influenza. (Zwiefelhofer)
- 1.5 In cooperation with ADF&G, other external partners, and other programs within the Service, monitor for aquatic invasive species such as green crab, mitten crab, Atlantic salmon, New Zealand mudsnails, crayfish, amphibians, and aquatic weeds. With these same partners, participate in the development and distribution of effective education and outreach materials.
- No work accomplished in FY-2007.
- 1.6 Strive to publish results from Refuge-sponsored research in peer-reviewed journals. Report routine fish and wildlife survey results regularly in publicly accessible reports.
- 1.6.a. Submit progress and final reports to ARLIS & submit final reports for inclusion in FWS Technical Report Series.
- Completed FY06 annual bald eagle and harlequin duck coastal survey reports and Karluk harlequin nesting study report were sent to ARLIS for archiving. Technical Report of annual winter marine bird and mammal survey are in preparation with regional biometrician for publication in refuge technical report series. (Zwiefelhofer)
- Bald eagle nesting manuscript detailing 40 years of refuge surveys published in Journal of Raptor Research. (Zwiefelhofer)
- Wildlife staff authored or co-authored two scientific publications (see Appendix for reprints):
- Zwiefelhofer, D. 2007. Comparison of Bald eagle (*Haliaeetus leucocephalus*) nesting and productivity at Kodiak National Wildlife Refuge, Alaska, 1963-2002. *J. Raptor Res.* 41(1):1-9
 - Austin, J.E., J.R. Keough, and W.H. Pyle. 2007. Effects of habitat management treatments on plant community composition and biomass in a montane wetland. *Wetlands* 27(3):570-587
- Co-authored manuscript of accumulated Kittlitz's murrelet at sea observations and 2006 nest discovery entitled "Kittlitz's Murrelets *Brachyramphus brevirostris* on Kodiak Island, Alaska". The manuscript has been submitted as a technical note for publication in the *Journal of Marine Ornithology*. (Zwiefelhofer)

GOAL 2: Ensure that Kodiak brown bears continue to flourish throughout the Refuge and congregate at traditional concentration areas and that this unique population continues into the foreseeable future.

To complement ADF&G objectives for brown bear populations, Refuge objectives include the following:

- 2.1 In cooperation with ADF&G, continue to use all available knowledge to monitor and evaluate trends in bear population size, composition, and mortality associated with recreation, subsistence, research, defense-of-life-or-property (DLP), and illegal kills.

2.1.a. Survey bear density in two regions (Sturgeon and Spiridon) in May.

Colder than normal spring weather delayed lake thawing, limited training of refuge survey pilots, and prevented survey of a second area. Preliminary results from survey of the Sturgeon IAS area indicated a stable population; no statistical difference was measured between 1998 and 2007 surveys. (Leacock)



Bears on the upper Karluk River (photo - Mara Weisenberger/USFWS)

- 2.1.b. Survey bear use of salmon spawning streams in the SW survey area during July-August.

The survey was operated as scheduled between early July and mid-August but data have yet to be processed. (Leacock/Saito/Traub)

- 2.2 In cooperation with ADF&G, maintain surveyed bear densities no lower than 10 percent below the lowest number within the following ranges: southeastern Kodiak and southwestern Kodiak 0.69–0.76 bears per square mile; northwestern Kodiak 0.64–0.72 bears per square mile.

Bear density remains within specified parameters.

- 2.3 Increase frequency of bear density estimates to improve bear population–trend monitoring in areas of high public use or special management concern (e.g., Karluk Lake vicinity).

Not accomplished during FY-2007.

- 2.4 Monitor and evaluate bear use, human use, and bear–human interactions at bear concentration areas that have established public use. Specifically study bear use, bear movements, and bear–human interactions in the O’Malley River area. Apply results to guide adaptive management in these bear concentration areas using an open planning process with ample opportunities for stakeholder involvement.

2.4.a. Survey bear use and human use during the late summer-early fall period of the upper Karluk River.

This study was implemented in 2006 in response to Larsen Bay Tribe's interest, as described in a Tribal Wildlife Grant, to develop the area for guided bear viewing in conjunction with Koniag, Inc., the landowner. Documentation of bear use and human use will provide foundations for developing site-specific objectives for bear use and for developing guidelines to facilitate compatible public use of the area. Data collection was resumed in early September 2007. (Leacock)

2.4.b. Examine other concentration areas.

Discussions with the a Fish and Game Advisory subcommittee (KUBS) in winter and spring 2007 identified lower Connecticut Creek as the site of highest interest for change in refuge administrative regulations to allow guided bear viewing. Subsequently site access, terrain and cover characteristics, potential viewing sites, and bear habitat use were studied during mid July-early August, the period of peak annual bear use. Study results will be used to advance discussion of what, if any, type of bear viewing may be appropriate for the area. Lower Connecticut Creek has been seasonally closed to commercial use since 1995. (Leacock)

2.4.c. Increase understanding of guided bear viewing operations.

To facilitate understanding of bear viewing guide services, operations run by Mike Munsey and Harry and Brigid Dodge were observed over a three-day period during July. Historically, commercial guides such as these have provided the bulk of bear-viewing services on the refuge. (Leacock)

- 2.5 Evaluate the management utility of the bear stream surveys using appropriate cross-comparisons with bear density survey data, climatic data, fish escapement data, and biological modeling efforts. Complete evaluation with assistance of U.S. Geological Survey/Alaska Science Center by 2007.

2.5.a. Complete evaluation.

In February 2007, Mark Udevitz, USGS/ACS biometrician, committed to provide the Refuge, in fall 2007, his evaluation of this bear survey database, which spans 1982-2005. (Pyle)

- 2.6 Investigate population size, movements, and habitat use of bears on Afognak Island. Develop a method for indexing trends in population size by 2008 and complete research on movements and habitat use four years after funding is obtained.

2.6.a Explore opportunities for funding and study design with Larry Van Daele.

Exploratory discussions were held, but no funding opportunities arose. (Leacock)

- 2.7 By 2006, complete assessment of the genetic diversity of the Kodiak brown bear so as to understand gene flow between the southern and northern Archipelago, the vulnerability of Kodiak brown bears to wildlife diseases, environmental stresses, and parameters of population viability.

The study, led by the Conservation Genetics Laboratory of the USGS/Alaska Science Center and supported by the refuge and ADF&G, was completed in February 2006. A summary of the study was posted in the Service's Fish and Wildlife Journal in February 2007. Presently, manuscripts are in preparation for publication. (Leacock)

- 2.8 By 2010, develop and implement a method of monitoring the supply of berries suspected of being essential to the welfare of the Refuge's brown bear population.

2.8.a Explore possible protocols in Upper Karluk area.

No work accomplished during FY-2007. (Leacock)

GOAL 3: Manage nonnative species to minimize impacts on native resources, while continuing to provide opportunities for harvest.

- 3.1 Develop monitoring and research strategies pertaining to objectives 3.2-3.5.

Not accomplished during FY-2007.

- 3.2 To facilitate population and habitat management, monitor—in collaboration with ADF&G—trends in summer distribution, size, and productivity of the mountain goat population on the Refuge. By 2008, initiate monitoring of trends in winter distribution of the mountain goat population.

Working together, ADF&G and the refuge surveyed most of the goat summer range on Kodiak Island including Kodiak Refuge. Population size is estimated at 1900 goats with about 65% distributed on the refuge. ADF&G has established an island-wide population management objective to be 700-1000 goats distributed so as to cause minimal damage to habitat. The goat population first exceeded the management objective in 2001 and has continued to grow. It is our intent to meet with ADF&G during FY-2008 to discuss the situation and formulate an action plan. For more information see the report in the Appendix. (Saito/Traub)



Mountain goat numbers continue to increase on the Refuge.

- 3.3 By 2008, design and implement studies to evaluate deer habitat use and preference on Kodiak Island to facilitate understanding of deer influence on the condition of winter range habitat.

Not accomplished during FY-2007.



Vegetation impacts are noted during annual deer mortality survey.

- 3.4 By 2008, develop methods, in partnership with ADF&G, to monitor deer population trends on Kodiak Island to facilitate harvest and habitat management.

Historically two methods have been used as a coarse index of deer abundance: an over-winter mortality survey and a hunter harvest survey. Results from the refuge-run mortality survey were similar in 2006 and 2007: moderate mortality occurred on the west side of Kodiak Island, low mortality occurred on the east side, and virtually none occurred on the south end. Consequently, the deer population on the west side has decreased. ADF&G's survey of deer hunters, partly supported by refuge funding, found that harvest of deer on the refuge comprises about 35% of the total harvest in Unit 8 (Kodiak Archipelago). Despite the 33% increase in the number of hunters, harvest rate declined 16% between 2006 and 2007. This was the first year since 1999 that fewer deer were harvested, a result which probably stems from reduced over-winter 2005-06 survival of deer and supply available for harvest in some regions of Kodiak Island. For more information see the report in the Appendix. (Saito)

- 3.5 By 2010, evaluate and report habitat use and preference of mountain goats to improve understanding of goat influence on habitat conditions.

Not accomplished during FY-2007.

- 3.6 In cooperation with ADF&G, annually monitor trends in distribution, size, and composition of the elk population on Afognak Island. Maintain the sample of marked animals to enable this population monitoring by assisting with funding and logistics related to animal-capture operations.

ADF&G proposed to run a capture and collaring operation to maintain the sample of marked animals used for population monitoring. In response, the refuge proposed to provide partial support for the operation using funds from the Challenge Cost Share program. Ultimately, the operation was cancelled due to problems with the helicopter contract and limited availability of refuge support (e.g., our CCS proposal was not funded). (Saito)

- 3.7 By 2012, develop an objective understanding of the effect of deer on berry-producing shrubs of primary importance to brown bears of Kodiak Island.

Not accomplished during FY-2007.

GOAL 4: Continue to improve understanding and management of furbearing and nongame mammals that use Kodiak Refuge.

- 4.1 By 2007, in cooperation with the Region 7 (Alaska) Marine Mammals Management Office, develop and implement a sea otter survey to annually index population trends. Provide staff support for periodic, Archipelago-wide surveys conducted by Marine Mammals Management Office staff.

In July Refuge staff submitted a proposal to MMM to survey sea otters in near shore areas around the Refuge. We have yet to receive a response from MMM regarding our proposal. (Saito)

- 4.2 In cooperation with the Region 7 Marine Mammals Management Office, expand communication on sea otters with the Alaska Sea Otter Commission, village councils, and others.

Led by MMM, the Service formed a recovery team, conducted several meetings, and incorporated recommendations in a draft plan. Saito serves as the Refuge liaison on sea otters.

Tagged subsistence caught sea otters. (Saito/Lee)

- 4.3 In cooperation with ADF&G, develop a method for monitoring trends in river otter populations, modify the existing ADF&G trapper questionnaire to capture information on refuge-specific furbearer harvest, and document estimated furbearer harvest and population trends in the annual refuge narrative report.

Not accomplished during FY-2007.

- 4.4 Initiate study of habitat ecology of snowshoe hares by 2012.

Not accomplished during FY-2007.

- 4.5 During cabin maintenance and management of derelict structures, take precautions to minimize damage to native bat populations.

Maintenance teams were aware of potential impacts to bats. Bats were observed utilizing structures at Camp Island.

GOAL 5: Monitor populations of resident and migratory birds as indicators of ecosystem health.

- 5.1 Continue to monitor coastal populations of environmentally sensitive resident birds in winter, spring, and summer for general information on species composition, distribution, and population trends to use as indices of marine and coastal resource health.

Prepared coastal harlequin duck survey data for use in statistical analysis contract. Analysis will explore different sampling designs in terms of their efficiency for estimating the frequency of occurrence and mean density for each of the dominant avian species for each survey area as well as basic community summary indices. Analysis will also attempt to determine whether the most efficient method can detect trends in the summary statistics of interest at different levels of sampling effort and temporal monitoring schedules. (Zwiefelhofer)

Continued to monitor use of Karluk Lake merganser and goldeneye nest boxes; three of ten boxes were used; only one box was successful with mixed brood of 7 common mergansers and 3 Barrow's goldeneye in single box. (Zwiefelhofer/Maryanski/Saito/G.Leacock)

Surveyed the nearshore zone (≤ 200 m) of 600 km of refuge's west side bays for harlequin duck, other aquatic migratory birds, and marine mammals. Analysis of harlequin duck data indicated a stable population in all areas except Uyak Bay, where continued trend of decline was documented. The population of Uyak Bay harlequins has decreased about 70% since the mid 1990s. Methods of survey design and trend analysis will be evaluated by a biometrician contracted in September 2007. (Zwiefelhofer/Maryanski/Lewis/Reynolds)

- 5.2 Continue to monitor populations of wintering waterfowl to provide information to the State of Alaska and the Alaska Migratory Bird Co-management Council in support of sound management of recreation and subsistence harvest of waterfowl. Monitoring should emphasize species such as black scoter, harlequin duck, and Barrow's goldeneye, which make up much of the waterfowl harvest in the Archipelago.

Annual winter marine bird and mammal surveys were completed in February. Results are currently being analyzed and prepared for Technical Report publication. See Appendix for related Fish and Wildlife Journal article. (Zwiefelhofer/Lewis/Reynolds)

- 5.3 Continue periodic monitoring of trends in distribution, size, and reproductive success of the Refuge's population of nesting bald eagles. By 2007, determine appropriate frequency and sample sizes for long-term monitoring.

Prepared historic bald eagle nest and production survey data for use in statistical analysis contract. Analysis of bald eagle data will explore how different sampling designs compare in terms of their efficiency for estimating nests, occupancy and productivity to test accuracy of current sampling protocols. (Zwiefelhofer)

Refuge-wide bald eagle nest and production surveys were completed in May and July. Between 1982 and 2002 the refuge's bald eagle nesting population increased from 200 to over 600 nesting pairs. Kodiak NWR 2007 bald eagle nesting effort decreased over 30% from the 2002 peak of 628 to 439 occupied/active nests. See Appendix for annual report (2006) and Fish and Wildlife Journal article. (Zwiefelhofer/Traub/VanHatten)

- 5.4 By 2007, develop a banding program to monitor trends in survival and productivity with a focus on sea duck species (black scoter, harlequin ducks, Barrow's goldeneye) that make up much of the local waterfowl harvest. Areas along the Kodiak road system and adjacent to the villages would be given priority for the program.

A total of 113 molting sea ducks from 3 species were captured and banded during August. The total was comprised of 10 common mergansers, 3 Barrow's goldeneye, and 103 harlequin ducks. Included in the harlequin duck captures were 9 recaptures, the oldest recapture was from 1997. (Zwiefelhofer/Maryanski/Saito/Lewis/G.Leacock)



A total of 113 sea ducks of 3 species were captured and banded to monitor trends in survival and productivity.

- 5.5 Identify important habitat areas on the Refuge for bird species of conservation concern, including bald eagles, Steller's eiders, harlequin ducks, emperor geese, marbled and Kittlitz's murrelets, red-throated loons, gray-cheeked thrush, orange-crowned warblers, and yellow warblers. Develop habitat maps by 2010.

Important bird area nominations for Chiniak Bay and NW Afognak (Ban Island, Foul Bay, Bluefox Bay) were approved as state IBAs by Alaska Audubon's IBA Committee. The state approved nominations were transmitted to a national committee for national ranking consideration. (Zwiefelhofer)

Contracted Alaska Biological Research, Inc. to conduct a pilot study of Kittlitz's murrelet use of selected terrestrial sites during summer on Kodiak Refuge. Collection of radar and audio/visual data by ABR, Inc. was limited mainly to the first of three study sites due to destruction of the field camp at site two by a severe storm. Preliminary study results confirmed the importance of the first site, located in the Kodiak Island Refugium to Kittlitz's murrelet, in contrast to other sites examined in 2006 which supported a majority of marbled murrelets. Follow-up research was recommended to study the breeding biology of Kittlitz's murrelet in the Kodiak Island Refugium. (Zwiefelhofer/Pyle)

- 5.6 Continue collaboration with the Migratory Bird Management Office, Alaska Region, on periodic monitoring of wintering Steller's eider populations to contribute to monitoring and recovery efforts under the Endangered Species Act. Expand this effort to include monitoring of emperor geese.

Assisted USGS researchers with pilot study of emperor goose capture methods in November. One bird was caught, the first outside of nesting season. Additional study was scheduled for late winter, but did not occur due to limited funding. [Zwiefelhofer/Lewis](#)

- 5.7 Develop baseline contaminants information for environmentally sensitive resident birds by 2010.

Blood samples collected from harlequin ducks in 2005 were analyzed for avian influenza (University of Alaska – Fairbanks) and mercury (BioDiversity Research Institute). AI test results revealed that about 7% of harlequin ducks of Uyak Bay were positive for non-H1N5. Mercury level of harlequin ducks in bays on the west side of Kodiak Island was about eight times lower than the level found in harlequins at Dutch Harbor. Among Kodiak samples, those from Uyak Bay were highest in mercury. (Zwiefelhofer)

GOAL 6: Maintain and restore native plant populations, communities, and habitats.

- 6.1 Develop and conduct reconnaissance surveys for invasive plants—particularly orange hawkweed (*Hieracium aurantiacum*), a known invasive on Kodiak Island—every five years in the vicinity of villages, private lands within the Refuge (e.g., lodges, canneries), and Refuge sites subject to routine use by people. Where invasive plants are detected, initiate collaborative control and eradication actions. **[PYLE]**

- 6.1.a. Continue implementation of hawkweed IPM plan.

The project involves a multi-year commitment by refuge staff assisted by teams of volunteers to eradicate hawkweed and restore native vegetation to hawkweed-infested sites at Camp Island, Karluk Lake. In 2007, herbicide applications occurred during early June and mid-September. Extra effort was allocated this year to 1) marking infestation areas and clearing vegetation within them prior to the early June herbicide application, and 2) preventing seed-set and dispersal via hand-pulling flower heads in late July. Funding support for this and other invasive plant field projects was dually provided by the Challenge Cost Share and Management of Invasives with Volunteers Programs. See Appendix for poster summary of project. (Pyle)

- 6.1.b. Complete and implement IPM plans for Canada thistle and oxeye daisy.

Both plans, along with pesticide use proposals, were completed, approved, and implemented. The IPM Plan for oxeye daisy calls for removal of flower heads by mowing and hand-pulling followed by herbicide application with about half the area to be treated in fall and half in late spring. Accordingly, flowers were removed prior to herbicide application during Sept 24-27. The IPM Plan for Canada thistle calls for mowing flower stalks followed by herbicide application. Flower stalks were mowed in early August and the herbicide application is expected to occur before Oct. 13. Response of both species will be monitored to measure extent to which eradication objectives are achieved. (Pyle)

- 6.1.c. Conduct reconnaissance survey of setnet sites.

Not accomplished during FY-2007 due to shortage of staff/budget.

- 6.2 By 2008, describe species composition of plant communities for selected areas of the Refuge, with special emphasis on the Kodiak Refugium and areas likely to contain endemic plants. **[PYLE]**

Data collected from a 2006 floristic survey of Mt. Glottof Research Natural Area were analyzed, interpreted, and reported by Carolyn Parker of the University of Alaska and Eve Laeger, California Academy of Sciences. A month of summer field work yielded 691 specimens

including 283 vascular plant species, 34 liverwort species, and 97 moss species. Many of these records were first documented occurrences on the refuge; at least 50 were firsts for the Kodiak Archipelago! Botanists documented 7 rare species of vascular plants and mosses including a form of Jacob's ladder (*Polemonium* sp.) that may be new to science. A 215-slide PowerPoint presentation was developed and presented to the public and the Kodiak Audubon Society by Stacy Studebaker. Combined 2005 and 2006 surveys have yielded records of 883 plant species of which 114 are first documented occurrences in the Kodiak Archipelago. (Pyle)

6.2.a. Survey flora on, and in vicinity of, ultramafic rock outcrops in the Kodiak Refugium.

In 2007, two volunteer botanists supported by two bear guards successfully executed the field survey between June 22 and July 17. The survey encompassed the area surrounding three base camps located adjacent to some of the most extensive outcrops of ultramafic rock on the refuge. Preliminary results indicate that 210 plant species were collected of which at least 23 species were new records for the refuge and 5 were previously unknown in the Kodiak Archipelago. Photo points were established at 33 locations overlooking a wide range of terrain and vegetation cover types. Photo-documentation of the survey was completed and integrated within a PowerPoint presentation containing 246 slides. Analysis, interpretation, and reporting of survey results will be performed per contract with the University of Alaska (Fairbanks) Herbarium. Bird observations were reported included the discovery of an area of apparent high use by globally-rare Kittlitz's murrelets. Funding support for this project was provided by a grant from the Service's Challenge Cost Share Program and by the Kodiak/Bristol Bay Ecosystem Team. See appendix for associated Fish and Wildlife Journal article. (Pyle)



Volunteer botanist Stacy Studebaker at ultramafic rock outcrop on the Kodiak Refugium. (photo – Mike Sirofchuck)

- 6.3 By 2010, develop a monitoring program to evaluate major plant communities in the vicinity of remote weather stations.

Not accomplished during FY-2007.

GOAL 7: Conserve the abundance of natural salmonid populations for continued human and wildlife use and to ensure the diversity of species as indicators of the health of the Refuge's ecosystem.

- 7.1 In collaboration with ADF&G, annually monitor escapement of salmon by means of aerial surveys and weir counts to ensure adequate escapement for future production and to support important commercial, recreation, and subsistence fisheries.

Weir counts were received throughout the summer from ADF&G via e-mail. With the exception of a few streams all monitored systems either exceeded or met their respective escapements.



Bears congregate at weir/fish pass at Upper Dog Salmon Falls.

- 7.2 Monitor salmon escapement in streams on the Refuge that are key seasonal feeding areas for brown bears and bald eagles and work collaboratively with ADF&G to maintain escapement levels that reflect wildlife needs.

Met with ADF&G sportfish and commercial fisheries biologists to discuss escapement and strategies for managing sport fishing should weir counts indicate that escapement goals were not being met. (VanHatten/Getman/Wheeler)

- 7.3 Annually review commercial, recreation, and subsistence harvest of salmon by means of ADF&G commercial harvest reports, special use permit reports, creel censuses, and subsistence reporting. Harvest data, along with escapement data, will be used to monitor productivity of salmon populations that occur in waters within Refuge boundaries.

Our office receives an e-mail from ADF&G – Division of Commercial Fisheries providing the the commercial catch around the Kodiak Island. There is no in-season harvest data submitted by ADF&G for recreational and subsistence harvest. We will work towards acquiring a harvest report for recreational and subsistence after the completion of the field season. (VanHatten)

- 7.4 Continue to review management plans and harvest regulations that may affect exploitation of fish populations located within the Refuge. Make recommendations to ADF&G, regional advisory councils, the Federal Subsistence Board, local advisory committees, and the Alaska Board of Fisheries, as needed, for modifications to existing plans and regulations and/or for new plans and regulations.

Reviewed proposals to the Alaska Board of Fisheries for impacts to Refuge resources.
(VanHatten/Wheeler)

- 7.5 Work with ADF&G to evaluate the need for steelhead escapement goals for Karluk, Ayakulik, and Sturgeon rivers. Additionally, recommend to ADF&G management actions or regulatory proposals that foster conservation of population structure and productivity of stocks that use these rivers.

We discussed with ADF&G the possibility of establishing steelhead escapement goals on the Karluk, Ayakulik, and Sturgeon Rivers. It was decided to focus our attention on the Ayakulik River. Baseline data was previously collected on the Karluk River by Refuge staff so there is not a need to collect additional information. The Sturgeon River is too difficult to access for a collecting good information. (VanHatten)

- 7.6 Assess and monitor populations to gather baseline data on noncommercial fish species such as Arctic char in Karluk Lake, Dolly Varden char, and resident rainbow trout. Use study methods such as mark-recapture, radio-tagging, weirs, video, and creel surveys with assistance of the Service's King Salmon Fish & Wildlife Service field office and ADF&G. [VAN HATTEN & LEACOCK]

7.6.a Explore possibilities of cooperation/collaboration with the Wild Salmon Center's and University of Montana Flathead Lake Biological Station's SaRON Project and ADF&G.

Considered potential proposal from Wild Salmon Center's and University of Montana Flathead Lake Biological Station's SaRON Project for Karluk River study. Lack of funding prevented further consideration of the study. (Leacock)

- 7.7 Continue to require ADF&G to implement monitoring programs for Kodiak Regional Aquaculture Association (KRAA) enhancement projects conducted on the Refuge, as outlined in specific refuge management plans (i.e., Spiridon and Hidden lakes enhancement management plans). Annually review project reports provided by ADF&G to ensure that biological parameters continue to meet management plan criteria, which will ensure protection of wild salmon stocks, char populations, and wildlife within the project area.

Attended annual coordination meeting with KRAA and ADF&G and reviewed project reports.
(VanHatten/Wheeler)

- 7.8 Through a collaborative effort with ADF&G, evaluate situations when fish populations are determined not to be meeting escapement goals or management targets. When weak stocks are identified (e.g., the early run of sockeye in Akalura Creek) develop strategies to improve and stabilize runs, which may include implementation of specific management actions and research or rehabilitation projects, while maintaining genetic integrity of these fish populations.

Two systems within the Kodiak Refuge boundaries did not meet their escapement goals for Chinook salmon. The Karluk River Chinook salmon sport fishery was closed on June 24 remained closed for the remainder of the season. The Ayakulik River Chinook salmon sport fishery was also closed on June 24 but was re-opened on July 2. The Karluk River sockeye salmon sport fishery bag limits was increased from 5 fish per day and 10 fish in possession to 10

fish per day and 20 in possession on June 21. These management decisions were made to protect both the Chinook and sockeye salmon populations within these drainages. Decisions for these management practices are based on historical data for run timing. In a pre-season management letter from ADF&G (collaborated with USFWS) management decisions would be made by June 20. Historically this date has been the designator for projecting the remainder of the salmon runs based on 50% of the run being within each system. (VanHatten/Wheeler)

- 7.9 Complete data collection and write a report describing and classifying genetic characteristics of salmon populations in the Kodiak Refugium by 2008. [VAN HATTEN & LEACOCK]

7.9.a Discuss with USFWS Genetics lab and ADF&G.

Substantial collections have been made from the Refugium area. Additional coordination is needed to determine the need for additional collection and to ensure samples are processed and reports generated. In the past lack of funding has prevented these samples from being processed. (VanHatten)

- 7.10 In cooperation with ADF&G, document and describe genetic characteristics and variability of natural fish populations that are important indicators of the diversity on the Refuge for both human and wildlife use.

Not accomplished during FY-2007.

- 7.11 Through a coordinated effort with ADF&G, evaluate salmon spawning and rearing habitat to determine productivity of salmon-producing systems within the Refuge.

Not accomplished during FY-2007.

- 7.12 Through a collaborative effort among ADF&G, the Refuge, and the Anchorage Fish and Wildlife Field Office, use escapement, habitat, and other pertinent data to establish sustainable or biological escapement goals—subject to review by the Alaska Board of Fisheries—for all species of salmon within the Refuge.

Not accomplished during FY-2007.

- 7.13 Establish and implement monitoring plans for streamside areas to ensure salmon and Arctic char rearing and spawning habitats remain productive.

Not accomplished during FY-2007.

GOAL 8: Provide the opportunity for local residents to continue their subsistence uses on the Refuge, consistent with the subsistence priority and with other Refuge purposes.

Most of the objectives listed under Goals 1 through 7 are also objectives for the subsistence goal. For example, there are numerous objectives related to management of deer (Goal 3), fish (Goal 7), and migratory birds (Goal 5), which are commonly used subsistence resources in and around the Refuge.

- 8.1 Coordinate with ADF&G and the Federal Subsistence Board to issue special actions, as authorized under federal in-season management, when necessary to ensure conservation of healthy fish stocks and to provide for subsistence uses (subject to Title VIII of the Alaska National Interest Lands Conservation Act [ANILCA] of fish in federal waters. Efforts will be made to minimize disruption to resource users and existing agency programs, as agreed to in the

Interim Memorandum of Agreement for Coordinated Fisheries and Wildlife Management for Subsistence Uses on Federal Public Lands in Alaska.

Our office has collaborated with ADF&G – Division of Commercial Fisheries in regulating the Litnik fishery. Due to continued low sockeye salmon numbers, an emergency order was created to reduce the subsistence fishing area within Afognak Bay. (VanHatten/Wheeler)

Provided weekly reports on status of subsistence fishing to Subsistence Management. (VanHatten/Wheeler)

- 8.2 Continue to coordinate with and assist the Division of Migratory Bird Management in completing the annual Migratory Bird Harvest Survey in rural communities surrounding Kodiak Refuge.

A survey encompassing the 2006-07 regulatory year was completed as prescribed by MBM. The survey included residents of Akhiok, Karluk, Larsen Bay, Old Harbor, Ouzinkie and the City of Kodiak. MBM is expected to issue survey results in fall 2007. (Lee)

- 8.3 Coordinate with ADF&G and the Service's Office of Subsistence Management to complete subsistence use surveys as needed.

The Refuge provided partial funding support to ADF&G for its deer harvest survey. In response to refuge support and requests, the survey was slightly modified to improve the quality of data collected for the refuge portion of Unit 8. (Saito/Lee)

Federal permits issued for subsistence hunting included 56 for deer (designated hunter program), 10 for elk, and 5 for brown bear. Reported harvest included 21 deer, 0 elk, and 3 brown bears. (Saito/Lee)

GOAL 9: Improve baseline understanding of natural flowing waters on the Refuge and maintain the water quality and quantity necessary to conserve fish and wildlife populations and habitats in their natural diversity.

- 9.1 In coordination with the Service's Fisheries and Ecological Services and the Water Resources Branch, in the Regional Office, ensure the Four Dam Pool and the Kodiak Electric Association comply with instream-flow requirements of the Terror Lake Project agreement and the Federal Energy Regulatory Commission license. Additionally, monitor and maintain water quantity and water quality that could be affected by future hydroelectric or other water development projects. [VANHATTEN]

FWS personnel from Kodiak Refuge, Anchorage Fish and Wildlife Field Office, and Water Resources met with individuals representing Kodiak Electric Association, the Four Dam Pool, and ADF&G to discuss periodic short-term violations of instream flow requirements. (Wheeler)

Water Resources personnel have monitored FERC correspondence and notified Kodiak Refuge of any apparent violations of instream flow requirements. The Refuge is monitoring this situation. (VanHatten/Wheeler)

- 9.2 By 2009, complete the Five-Year Plan of Study for the Water Resources Inventory and Assessment on the Kodiak Refuge and, in coordination with the Service's Water Resources Branch, quantify and file for instream water rights for the maintenance and protection of fish and wildlife habitats. [JASPER HARDISON, VANHATTEN]

Water Resources personnel have completed field sampling for the Five-Year Study of Water Resources on Kodiak Refuge. Refuge personnel occasionally accompanied the field team. The Refuge is now waiting for the results of the study and for Water Resources to file for instream water rights. (Getman/VanHatten)

- 9.3 In cooperation with ADF&G and the Anchorage Fish and Wildlife Field Office, initiate limnological studies at lakes and streams within the Refuge that provide important habitat for fish and wildlife. Specifically, begin studies at Karluk, Ayakulik (Red Lake), Frazer, Akalura, Uganik, Sturgeon, Spiridon, and Little River systems.

ADF&G has been conducting limnological studies at Karluk, Frazer, and Spiridon Lakes to document zooplankton productivity and correlation with salmon productivity. Steve Schrof, Kodiak Finfish Biologist for the Alaska Department of Fish and Game – Division of Commercial Fisheries, has provided our office with a copy of the 2006 Spiridon (Fishery Management Report No. 07-37) and Hidden Lakes (Fishery Management Report No. 07-29) Sockeye Salmon Stocking Project and Related Monitoring Parameters report on June 17, 2007. (VanHatten)

GOAL 10: Provide opportunities for quality public use and enjoyment of Refuge resources through compatible fish- and wildlife-dependent recreation activities, including hunting, fishing, wildlife observation, and photography.

- 10.1 Improve monitoring and continue appropriate onsite management of seasonal aggregations of public use at Ayakulik River, Karluk River, Frazer fish pass, and Uganik River and expand to other areas as use develops.

On the Ayakulik River, voluntary camping area closures were posted at the beginning of the summer. The Ayakulik public use camp was in place and staffed from 6/8/07 to 6/22/07. Two volunteers and one detailee staffed the camp continuously, with intermittent support from Refuge LE personnel. Latrines and a fenced food-storage area for visitors were set up near Bare Creek. Chinook and sockeye salmon returns were poor, and the sport fishery was temporarily closed during the week of June 24th. Visitor use was well below historical levels; camp personnel contacted about 30 unguided anglers. (Getman/Traub/Glaspell)



Morning at the Ayakulik River Public Use Camp.

No Karluk public use camp was operated this year due to limited resources and demand. After four years of operation, the goals of informing unguided users about easement rules had largely been accomplished. In addition, use patterns have evolved so that most users are guided, and the camp is unnecessary for them.

A \$15,000 Visitor Facilities grant was awarded to the Refuge for construction of interpretive and directional signs at Frazer Fish Pass. Discussions of interpretive themes and language were initiated with Alaska Department of Fish and Game personnel. A contract was initiated for graphic design and fabrication of the signs, with the date for delivery of final signs set for 5/1/08. (Kuchera/Getman/Glaspell)

On the Uganik River, Refuge personnel completed a two-day, campsite inspection patrol in late September. Reports of litter and messy camps went unconfirmed, as all inspected campsites were in satisfactory condition. Guide/unguided angler conflict, angler-bear interactions, and concerns about long-term angler camps and camping etiquette (similar to the Ayakulik River prior to 2004) may require more attention from Refuge staff in FY08. (Getman/Traub)

Bears, people, and camps were counted and mapped on 9 aerial surveys conducted on seven days during September 2-26 on the lower Uganik River (lake outlet to estuary). Bears/survey averaged 10 with a peak of 18 bears counted on the 25th. People/survey averaged 14 with a peak of 25 counted on the 2nd. A maximum of 4 camps was observed on the 5th. Most frequently used camp locations were at the east side of the lake outlet and the island in the lower river. (Saito/Traub)

- 10.2 In cooperation with ADF&G, Koniag, Inc., Akhiok-Kaguyak, Inc., and Old Harbor, continue to implement and manage easement agreements to minimize impacts of public use on fish, wildlife, and habitat; to ensure compatibility with Refuge purposes; and to provide for sustainable fish, wildlife, and wildlands recreation.

10.2.a. Support implementation of Natives of Larsen Bay's Tribal Wildlife Grant, much of which pertains to management of resources on the Koniag Conservation Easement.

Grant implementation was routinely monitored and facilitated. In response to the Tribe's request, a recommendation was provided, in collaboration with BIA, on appropriate computer hardware to purchase for support of GIS analysis. Cooperation commitments were requested and approved by the Kodiak Island Borough and Koniag, Inc. to share costs of a geodetic survey for use in geo-rectification of satellite imagery. The Tribe will request a one-year extension of the grant to complete acquisition of high-resolution satellite imagery of their project area. (Pyle)

10.2.b. Coordinate with the three native corporations and the State of Alaska to continue the success implementation and management of conservation easements.

The annual coordination meeting as required by the Koniag conservation easement was conducted and involved Koniag, Alaska Department of Fish and Game, and the Refuge. A major modification was that Koniag would no longer provide commercial guiding services through their Karluk Wilderness Adventures division. Rather, Koniag would authorize qualified guides to book clients and provide services themselves. Koniag also opened their rental cabins to non-commercial clients. The Refuge also assisted in co-hosting a meeting attended by all commercial operators who would be operating on easement lands. (Getman/Wheeler)



Lands protected under the conservation easement with Koniag, Inc. contain some of the most valuable wildlife habitats in the refuge and which are of international importance.

Several telephone conference calls were conducted with new members of the Akhiok-Kaguyak, Inc. board to clarify the correct protocols for issuing land use and commercial operator permits as per their business plan. (Getman)

- 10.3 In 2007, develop an operations plan encompassing all aspects of law enforcement to be completed by 2008. Annually monitor commercial activities on the Refuge, including compliance with special use permit conditions and operation plans. Expand law-enforcement outreach to include education programs and media releases regarding Refuge regulations, and increase the number of field patrols to protect resource values and to enhance visitor experiences on Refuge and conservation easement lands. [GETMAN]

10.3.a Complete the Law Enforcement Needs Assessment (LENA) as per 8 RM 14.25.

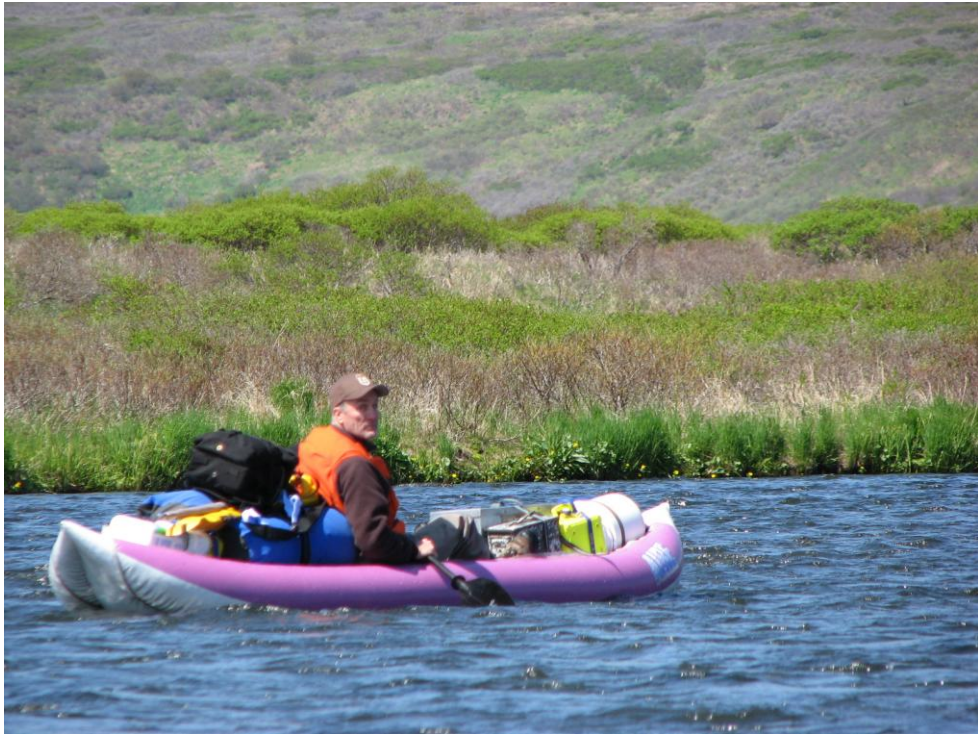
Bill Raften (Zone Officer) met with appropriate Refuge staff in September and conducted a review of the station's law enforcement program. Mr. Raften will compile a final report which will include an overall assessment of the program and recommendations for any necessary changes, corrections, or additions. (Getman/Traub)

10.3.b. Conduct the following field patrols:

Spring bear hunter checks - This patrol was terminated when Gene Peltola canceled his 2-week FTEP trip to Kodiak to perform bear hunter checks with RO/P (Traub)

Ayakulik and Karluk River, June - RO's Traub and Getman completed two 5-day patrols on each river during the king salmon season. One warning was issued on the Ayakulik for failure to keep a clean campsite; on the Karluk two violations were turned over to AST (they occurred outside

the refuge) and 4 cabin trespass violations were turned over to Koniag, Inc. On the Ayakulik, the sockeye season was closed on June 25; and the king season was also closed on June 25 but was reopened on July 2 when the escapement goal was met. On the Karluk, the sockeye daily bag limit was increased to 10 on June 20 while the king fishery was closed on June 24 due to unachieved escapement goals. (Getman/Traub)



With limited aircraft access points on the Karluk River, floating the river in inflatable watercraft is the most efficient patrol method.

Set net site inspections – Inspections were completed in conjunction with the realty effort to visit each site and determine area occupied for site appraisal and permit fee assessment purposes. (Wheeler)

Patrol response: fish, goat, elk, misc. – One Search and Rescue (SAR) was initiated when high winds destroyed the refuge murrelet study camp and members were in need of evacuation due to danger of hypothermia. Study team members were successfully evacuated by helicopter without injury.

Fall salmon anglers – One 2-day air patrol was conducted on the Ayakulik, Karluk, Dog Salmon, Sturgeon, and Uganik rivers. On the Uganik, the river below the lake was inspected for littered campsites based on a report from a river guide. No trash was found. A 3-year investigation concluded with a citation issued to a “foreign fishing club/guide” for operating on the refuge without a special use permit. (Getman/Traub)



Fall angler use on the Karluk is increasing as the river's reputation grows as an excellent steelhead fishery.

Monitor easements – Easements were inspected in conjunction with the Ayakulik and Karluk fall salmon angler patrols. (Getman/Traub)

Fall bear and deer hunters – No patrols were conducted during the fall 2006 seasons since the newly hired refuge officer/pilot was completing the ROBS and FTEP requirements.

Public use cabin inspections – Completed in September, 2007. (Traub)

- 10.4 Assess the nature of visitor experiences available in different types of bear-viewing settings to support the design and development of viewing programs at O'Malley River and other potential sites. Complete the assessment(s) in advance of the implementation of any new bear-viewing program(s).

No work completed in FY07.

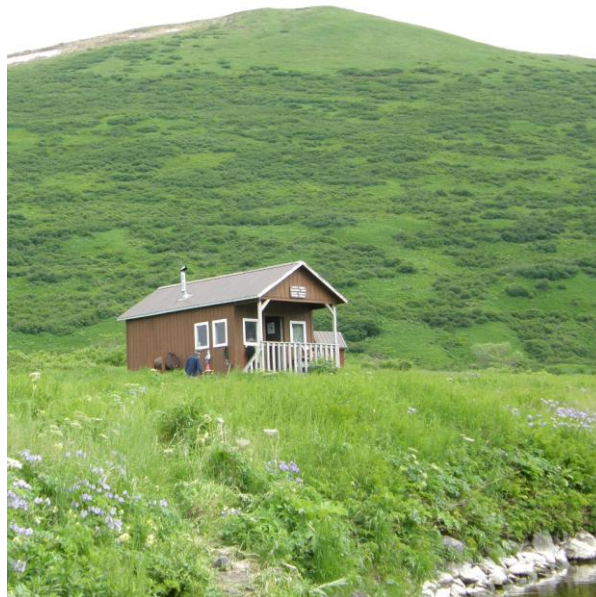
- 10.5 Using rigorous social science methods, assess the nature of visitor experiences, significant influences on those experiences, and public acceptability of potential management actions at Frazer fish pass. Use results of the study as input to visitor-use management and potential visitor-capacity decisions at that site.

No work completed in FY07.

- 10.6 Manage the public use cabin system to support a variety of compatible recreation activities by carefully considering the location of all current cabins and potential future additions to the system.

Minor maintenance work performed by refuge staff and volunteers. Late summer inspection/review of all cabins conducted. (Banyas/Monzon/Traub)

Cabin use fees were discussed at a public meeting in March. Given the current modest fee structure (\$30 per night) and the fact that collected fees are not meeting cabin maintenance costs, there was no objection from the public in attendance at the meeting to the Refuge increasing cabin rental fees to the level of cabin fees on other public lands in southcentral Alaska. (Wheeler)



Little River Lake public use cabin.

- 10.7 Continue to monitor use of 17(b) easements and implement management actions as necessary to prevent resource impacts to the easements. (Also see Goal 1.)

10.7.a. Assist Koniag Inc. with their project to harden another 1,500 feet of the Portage Trail.

Koniag received a grant from the Polaris Company which allowed another 1,500 feet of geo block to be laid on the Portage Trail. The trail section hardened was that immediately adjacent to the Karluk River. The refuge was unable to provide on-site assistance, but loaned equipment and assisted with logistics. (Getman)

- 10.8 By 2008, assess off-road vehicle (ORV) use on conservation easements lands.

No work completed in FY07.

- 10.9 Initiate assessment of snowmachine use on the Refuge.

No work completed in FY07.

GOAL 11: Improve management of commercial use opportunities that are compatible with Refuge purposes, provide quality public use opportunities, enhance visitor experiences, and ensure compliance with provisions of ANILCA.

- 11.1 To accommodate an increasing number of permittees, review the current process for administrating special use permits and develop a simplified, more time-efficient system for receiving applications, issuing permits, processing use reports, and distributing billings.

Regular, minor adjustments have led to a system that works well for permit applicants and established permittees. No substantial changes were initiated in FY07. (Monzon)

- 11.2 By 2008, develop an education program for commercial operators to inform permittees of refuge requirements, goals, and regulations. As a part of this, provide updated information on bear safety and awareness for distribution to clients.

A public meeting was held in March 2007 to update the public on the recently finalized Refuge Comprehensive Conservation Plan (CCP). Revision of permit special conditions to match those in the CCP was begun in September 2007 and will be completed over the winter. (Monzon/Refuge Staff)



Manager Gary Wheeler and Refuge Staff present the final CCP to the public (March, 2007)

- 11.3 By 2007, obtain stakeholder input, determine if the 1987 Management Plan for Commercial Fishing Activities needs to be revised, and update this plan if warranted.

The Service has committed to the State that we would revise the Refuge Commercial Fishing Management Plan during 2007. We began the process by informing attendees at a public meeting in March that we would be revising the plan. We will continue with the process in fall 2007. (VanHatten/Glaspell)

GOAL 12: Provide outreach, environmental education, and interpretive programs that increase a sense of stewardship for wildlife, cultural resources, and the environment and that enhance visitor experiences on the Refuge.

- 12.1 Plan, design, and construct a Refuge visitor center in the vicinity of downtown Kodiak to be complete by 2009.

12.1.a Facilitate completion of building, exhibits and FF&E (fixtures, furniture and equipment). [Also reference Goal 12.2]SHAW

Worked directly with FWS Site Inspector, Robert Lachowsky, Project Manager, John Stricklan, General Contractor, Fred Roberts, and the exhibit fabrication team (Kevin Painter, Split Rock Studios, Aldrich Pears and Assoc.) to effectively review and approve all aspects of the Kodiak Refuge Visitor Center. Drafted sole source paperwork, FF&E items, and reviewed all furniture, paint/tile colors and styles with architect. Progress reviews included two trips to Split Rock Studios in St. Paul, MN and two weeks on site in Kodiak during the installation phase. FWS is on schedule to take possession of the facility Oct. 20, with Community Opening set for November 17th. (Shaw)

Shaw commissioned local metal artist, Mark Witteveen, to create a custom donation box for permanent display in lower lobby of visitor center. Work required the documentation of building specifications, coordination of placement in facility with FWS site inspector, Robert Lachowsky, and paperwork for payment with John Stricklan, RO Project Manager, and Kelly Keating of Blazey Construction. (Shaw)



The nearly-completed Refuge Visitor Center (September, 2007)

Drafted Refuge video production plan for Kevin Painter's review, as well as early shot lists. Acted as collection point for all still and moving historic photos from the Kodiak Historical Society (for use as 'Ken Burns effect') and bear guide footage from Sid Omlid and provided to NCTC videographer, David Cooper. Reviewed and edited two versions of script as provided by NCTC script writer (contract) and discussed with Kevin Painter and Gary Wheeler. Coordinated review of script by Amy Steffian, Deputy Director/curator of the Alutiiq Museum and made

necessary edits to script. Coordinated the on-site filming by NCTC videographer, over the course of two weeks, opening logistical planning dialogues with FWS pilots, Kodiak Refuge Managers and RO staff and submitting all necessary flight plans. Managed logistics and approvals for filming of subsistence fishing off of Gibson Cove, filming within the Alutiiq Museum, the US Coast Guard base and many points along the road system. (Shaw)

12.1.b Facilitate rearticulation and installation of gray whale with The Gray Whale Project Coordinator.

Worked in conjunction with The Kodiak Gray Whale Project (KGWP) Coordinator, Stacy Studebaker, to publicize the whale exhibit through public tours, newspaper articles and radio stories. Shaw acted as a liaison between Kodiak Refuge VC architect, ECI/Hyer, KGWP Coordinator in the early construction phase, linked all parties for smooth communication in the for discussions of layout, logistical planning and hanging of whale. (Shaw)

Facilitated the transport of local artist, Bruce Nelson, to gather sketches and images from the southeast coast of the Refuge in preparation for the 16 foot original oil painting that will be on permanent loan in the upper lobby of visitor center. (Shaw)

Negotiated and completed a FWS memorandum of understanding between KGWP and FWS. Glaspell



Volunteer Stacy Studebaker with a portion of the gray whale skeleton that will hang in the lobby of the new visitor center.

12.1.c Plan, publicize and present public talks, radio and newspaper interviews and press releases informing the public about building/exhibit progress, mission and public involvement.

Acted as liaison with the local media to produce regular newspaper articles and radio stories about the VC building and exhibit progress—giving live and taped interviews for KMXT and the Kodiak Daily Mirror throughout the year. Led more than 20 guided “hard hat” tours for many Kodiak-based partner agencies and non-profits, as well as regional and national FWS VIP’s including (but not limited to): Randall Luthie, National FWS Chief Engineer, R7 Chief Engineer, Assistant to the Secretary of the Interior for Alaska, Kaiulani Lee (Broadway Actress) and many more. Tours were tailored to the audience and focused on how the new facility would be relevant

to each group, embody the NWRS mission of linking people with nature and aimed at building bridges between groups with positive outcomes of future funding and staffing (volunteer or paid) and the overall usefulness of the building. (Shaw)

12.1.d Draft Standard Operating Procedures for visitor center operation, visitor center volunteer training, Alaska Natural History Association (ANHA) Scope of Sale and coordinate ANHA sales branch in sync with grand opening in Fall 2007. [See also Goal(s) 10, & 12.2]

Created ANHA store Scope of Sale in coordination with ANHA Director of Sales and Service, Malou Peabody. Facilitated the closing and packing of old Kodiak NWR visitor contact station branch in preparation for move to new facility and the drafting of standard operating procedures for the ANHA sales outlet by ANHA Staff person, Cassie Wolkensdorfer. (Knoth/Shaw)

Coordinated with Malou Peabody, ANHA graphic artist, and Regional ANHA Liaison Kevin Painter for all outreach materials for public opening, as well as commemorative products (i.e., custom mugs, non-interpretive items). (Shaw)

Traveled to the Denali NP ANHA branch with Malou Peabody, ANHA Director of Sales and Services, to observe the sales operation and adapt for Kodiak Branch. (Shaw)

- 12.2 By 2007, provide better access to Refuge information on topics such as bear safety, campfire safety, permits, and public use cabins through a Web site and other electronic media. Information would also be available through a variety of non-electronic sources.

Updated website to reflect changes in the Koniag conservation easement permit process (reverted from online to hardcopy system), and updated permit form and accompanying fact sheet explaining easement use rules. (Getman/Monzon)

- 12.3 Increase visitor center staffing to allow the center to be open seven days per week during peak visitor use season (dependent on funding).

12.3.a Coordinate with refuge management and regional office on the hiring of a permanent, full-time Environmental Education Specialist to be stationed at new visitor center and lead Salmon Camp planning and execution and other environmental education programs. [See also Goal(s) 12.7 & 12.8]

Hired Sue Knoth as the permanent, full-time EE Specialist in February 2007. (Shaw/Getman/Wheeler)

12.3.b Recruit volunteers for participation in new visitor center staffing (with focus on training them in for Fall 2007 opening) and continue to broadly recruit across Kodiak community for the Regional-based Friends of Alaska National Wildlife Refuges. [See also Goal 12.6]

Maintained open dialogue about the need for volunteer docents in the local community to staff the visitor center. Began involving interested volunteers in Refuge events in preparation for the visitor center opening. Recruited for the Friends group within the Kodiak Community and successfully welcomed five new members. One of these new faces, Denise Lachowsky, attended the annual Friends meeting in Kenai, AK on behalf of Kodiak Refuge and its locally based Friends. Lachowsky is now the Friends official point of contact with Kodiak Refuge staff and will be assisting Refuge personnel and the Friends to meet Service mission and goals on a local level. Volunteer training is pending the completion of the visitor center. (Shaw)

- 12.4 Acquire base funds for the Kodiak Summer Science and Salmon Camp base camp and village outreach project through Refuge System funding processes to avoid depending on annual fund-raising.

12.4.a In the absence of 100% base funding, seek Challenge Cost Share funding (\$25,000.00) to continue community education efforts through Kodiak Summer Science & Salmon Camp (now entering its 12th year). [See also Goal(s) 12.8]

Obtained the maximum allowed CCS funding of \$20,000.00 for Salmon Camp. (Shaw)

12.4.b Participate in Dig Afognak 2007 and bring Salmon Camp to all 6 of Kodiak's remote villages. [See also CCP Goal(s) 12.5 & 12.8]

Salmon Camp was brought to the villages of Larsen Bay, Ouzinkie, Port Lions, and Old Harbor, reaching a total of 70 campers. The other village trips were canceled due to weather. (Knoth/Lee/SCA Counselors)



Salmon Camp participants enjoying a break at the beach

- 12.5 Annually sponsor, co-sponsor, or participate in community events, festivals, and programs (e.g., Migratory Bird Day, Crab Fest, Whale Fest) to build awareness of the Refuge and Kodiak ecosystems.

12.5.a Sponsor National Wildlife Refuge Week, planning, promoting and presenting public talks in support of the National Wildlife Refuge System.

Planned, promoted, and sponsored the Kodiak production of *A Sense of Wonder*, a play about the life and works of Rachel Carson, by Broadway actress, Kaiulani Lee. Promotion included obtaining a NPR interview feature news piece (also carried by Homer station), a live interview on for-profit radio station KVOK and a feature news piece in the Kodiak Daily Mirror. Event flyers were posted around the Kodiak community, with PSA's run on all local radio, cable TV and news print media. About 80 people attended the performance. (Shaw)



Refuge Manager Gary Wheeler and Visitor Center Manager Tina Shaw join actress Kaulani Lee at the conclusion of her play *A Sense of Wonder* sponsored by the Refuge for National Wildlife Refuge Week.

12.5.b Participate in ComFish to build awareness about Refuge, Kodiak ecosystems and Salmon Camp 2007.

The Refuge created and staffed a booth at ComFish, the annual fishing trade show in Kodiak held March 15th-17th. (Knoth/Shaw/Refuge Staff)

12.5.c Participate in WhaleFest 2007, both in planning (planning begins Winter 2006) and in facilitating environmental education efforts in the K-6 schools, home school groups and informal interpretive programs for all ages. [See also Goal 12.8]

Participated in planning sessions for WhaleFest and set up an educational booth at the WhaleFest kick off party in April, reaching 60 kids and families. Whale Watch, a program to give local school children whale watching opportunities, took place in conjunction with Whale Fest. Three schools and nearly 500 students participated in Whale Watch this year. (Knoth)

12.5.d Plan and coordinate 100% volunteer-staffed CrabFest Booth with assistance from Friends of Alaska National Wildlife Refuges (raising donations for Salmon Camp). During this time period, plan and coordinate a cross-program invasive species volunteer effort with Refuge Wildlife staff. [See also Goal(s) 6.1, 12.3, 12.6]

Facilitated the Friends of Alaska NWRs to spend a week in Kodiak. During this time, the Friends built a CrabFest float for the parade (taking a Mayor's award!) and staffed the CrabFest booth on the mid-way, raising more than \$300 in support for Salmon Camp. Due to poor weather and logistical complications, the invasive species efforts were postponed by Refuge biological staff. (Shaw)

12.5.e Participate in Kiwanis Pink Salmon Derby, increasing awareness about Kodiak Refuge and educational programs.

With assistance from two Salmon Camp counselors, participated in the pink Salmon Derby, reaching 225 kids and their families. (Knoth)

12.5.d Plan and coordinate local opening ('Community Celebration') tentatively set for fall of 2007 and official dedication (occurring in FY08).

Coordinated with RO VS staff, Kevin Painter, and ANHA for the creation of outreach materials in support of the grand opening community celebration (set for Nov. 17, 2007). This included specifying materials to be designed, proofing graphic design elements, editing text for invitations, event programs and the like. Produced draft event plan with Kevin Painter. Contacted Kodiak-based experts to speak during day-long event, planned staffing needs and coordinated with locally-based caterer for event. (Shaw)

12.6 By 2008, work within the community to increase partnerships and volunteers to form a friends group for Kodiak Refuge.

12.6.a Collaborate with Alaska Natural History Association (ANHA) on generating our annual appeal letter (a.k.a., donation letter) in support of Salmon Camp. [See also Goal 12.4]

Local Kodiak Friends group members Robert and Denise Lachowsky penned a fund raising letter in cooperation with ANHA. ANHA set up a Salmon Camp fund for the first time this year. The 2007 appeal letter generated \$6,315 in support of Salmon Camp. (Shaw/Knoth)

12.6.b Host preliminary 'Friends of Kodiak Refuge' information session for interested Kodiak residents and build upon current interest.

This is pending completion of the visitor center building.

12.7 As staff and funding allow, conduct workshops with schools and teachers across Kodiak Island to enhance curriculum and outreach dealing with Refuge resources, issues, and opportunities.

12.7.a Facilitate teacher workshop and create Refuge-specific K-6 curriculum for bi-annual classroom environmental education efforts. Class visits to all six K-6 schools and home school organizations. [See also Goal(s) 12.8]

This will take place in FY08.

12.7.b Plan, coordinate, and facilitate teacher training for on-site school group visits to the new visitor center and how best to utilize on-site activity guide [See also Goal(s) 12.8]

This will take place in FY08.

12.8 Expand opportunities for individuals, organized groups, and families to learn about the Refuge through on- and off-headquarters programs, environmental education, nature walks and interpretive programs.

12.8.a Plan and budget 2007 Educational and interpretive activities in conjunction with cooperating association (ANHA).

Utilized ANHA funding to cover some of Salmon Camp's funding needs (not covered by CCS funding), CrabFest supplies, volunteer appreciation, and Refuge Week (rental of Billiken Theater). (Shaw)

12.8.b Create 'Families Understanding Nature' educational backpacks ('FUN Pack') for loan to Kodiak and visiting families. Backpacks to include raft of educational multi-media with wildlife focus, field guides, binoculars and Kodiak Refuge-specific activity guide (linked to Junior Refuge Manger program). Guide to be created with input from Refuge law-enforcement, Wildlife, Fisheries and Subsistence Programs. [See also Goal(s) 10.3, 12.1]

This will take place in FY08

12.8.c Create on-site activity guide for class visits and home school groups.

This will take place in FY08.

12.8.d Create a new website with the purpose of educating Kodiak community about upcoming and ongoing events, programs and activities taking place at the new Visitor Center. Launch site Summer 2007 in preparation for opening in Fall 2007.

Created new website and purchased .org website domain names for www.kodiakwildliferefuge.org and other variations of the name (i.e., misspellings). (Shaw)

12.8.e Revise and re-print Kodiak Refuge brochure

Selected images, revised text, and contracted with graphic designer to revise 1998 version of Refuge brochure. Printed 20,000 copies of the new one in anticipation of high demand related to the new visitor center. (Glaspell/Shaw)



Cover and pages from the new refuge brochure

GOAL 13: Conserve cultural and archaeological resources of the Refuge.

- 13.1 Identify priority areas to inventory for archaeological and other cultural sites and conduct surveys as time and personnel permit. Perform surveys at a level sufficient to evaluate, without a follow-up visit, eligibility of sites identified for inclusion on the National Register of Historic Places. While actual surveys will be conducted as funding and personnel become available, the identification of priority areas and overall planning for surveys should be completed by the end of 2007. [VISITOR SERVICES]

13.1.a. Support the Alutiiq Museum's continued inventory of archaeological sites on the refuge through the Challenge Cost Share Program. [CORBETT]

Alutiiq Museum received a CCS grant and conducted a survey near South Olga Lakes.

- 13.2 Formalize the existing partnership with the Alutiiq Museum by the end of 2006. This agreement should spell out participation of the Refuge, the Service's Regional Office in Anchorage, and the Museum in terms of both funding and tasks. Seek out and develop partnerships with Native corporations, universities, other government agencies, etc., to cooperatively inventory, manage, and protect cultural resources.

No work completed during 2007.

- 13.3 Identify and acquire archaeological, historical, and ethnographical archival resources to provide the necessary background material to support archaeological and historic site protection, public interpretation, and paleobiological information useful in wildlife and habitat management.

No work completed during 2007.

- 13.4 Provide Archaeological Resources Protection Act training to Refuge law-enforcement personnel. Provide basic cultural resource training to Refuge staff. Identify sites or areas at risk for vandalism and monitor with periodic law-enforcement patrols. [VISITOR SERVICES]

Refuge officers received refresher archaeological resources protection training at annual in service training. (Getman/Traub)

13.4.a. Support the Alutiiq Museum's establishment of a stewardship program for archaeological sites on the refuge through the Challenge Cost Share Program. [CORBETT]

No work completed during 2007.

- 13.5 Strengthen and expand the Alaska Heritage Resource Stewardship program for site monitoring and evaluating site conditions on Kodiak Refuge.

No work completed during 2007.

GOAL 14: Conserve special and unique features of the Archipelago ecosystem within the Refuge.

Note: Most of the objectives listed under Goals 1 through 7 are also objectives related to the special and unique features of the Archipelago ecosystem.

With public involvement, develop a management plan for the Mount Glottof Research Natural Area that identifies conservation and monitoring measures to preserve and document featured values and identifies how management under the plan may influence public use and access.

No work completed during 2007.



Fall colors at Karluk Lake accentuated by warm fall sunset lighting. (photo – Mara Weisenberger/FWS)

GOAL 15: Promote close working relationships through effective coordination, interaction, and cooperation with other federal agencies, state agencies, local communities, tribes, organizations, industries, the general public, and landowners adjoining the Refuge whose programs affect, or are affected by Refuge management activities.

For the 5th consecutive year, the Refuge supported ongoing international collaboration efforts by the Brown Bear Working Group. [This Working Group, administered as a Northern Forum project, is dedicated to conservation, research, management, and public outreach pertaining to brown bears that occupy 15 regions of five countries distributed along the north Pacific Rim]. Specifically, the 6th workshop, held this year in Fairbanks, was attended followed by an interagency meeting in Anchorage to facilitate collaboration and standardization of sampling methods on study of brown bear genetics of the North Pacific Rim region. See Appendix for a report of workshop results and associated draft news article. (Leacock)

- 15.1 Routinely report results of biological and subsistence management, monitoring, and research to external audiences, including Kodiak Fish and Game Advisory Committee, Kodiak-Aleutian Regional Advisory Council, tribal councils, and other interested groups and individuals.

[BIOLOGICAL & SUBSISTENCE STAFF]

15.1.a. Report subsistence management results to Kodiak-Aleutian Regional Advisory Council in the Council's meeting handbook. **[SAITO]**

Refuge and ADF&G jointly disclosed results of cooperative surveys to the Kodiak Fish and Wildlife Advisory Committee and the Kodiak/Aleutians Regional Advisory Council. See reports in Appendix. Preliminary or final results of 11 studies were summarized in 11 wildlife articles on Fish and Wildlife Journal website. (Leacock/Pyle/Saito/Wheeler/Zwiefelhofer)

- 15.2 Use and assist in the fish and game regulation process through interaction with ADF&G, local fish and game advisory committees, state Boards of Fisheries and Game, Federal Subsistence Board, Kodiak-Aleutians Federal Subsistence Regional Advisory Council, and the Alaska Migratory Bird Co-management Council.

15.2.a. Submit proposal to change the regulation governing elk hunting on Kodiak Island to Board of Game.

The proposal was submitted to the Board and subsequently withdrawn based on its rejection by the Kodiak Fish and Game Advisory Committee and the Kodiak/Aleutians Regional Advisory Council. Reasons for rejection were: 1) the threat is perceived as minor; 2) current hunting regulations afford sufficient opportunity for hunters to eliminate any elk that immigrate from Afognak or Raspberry Island to Kodiak Island; and 3) the proposal's provision to allow elk harvest any time of year on Kodiak Island would encourage illegal harvest of elk that reside on Afognak and Raspberry Islands. (Pyle)

- 15.3 Use public processes as necessary to encourage stakeholder involvement in implementation of this Conservation Plan.

15.3.a Work closely with KUBS, Kodiak Bear Trust, Koniag, and Larsen Bay.

All KUBS meetings were attended. In response to an objective in the Comprehensive Conservation Plan, the Refuge initiated a step-down planning process to deal with commercial use of accessible bear concentration areas it closed to guided commercial use in 1995. Discussion with KUBS quickly focused on Connecticut Creek, one of the Refuge's most important concentration areas. To facilitate site-specific planning, the refuge studied bear use and site characteristics in June and July. Additional meetings will be held in winter 2007-08 to discuss study results and to set parameters for future bear viewing by guided and unguided public. (Leacock/Pyle/Wheeler)

15.3.b Conduct a meeting in Kodiak to update the public on the completion of the revised CCP and seek input on implementation.

The Record of Decision for the recently revised CCP was issued by the Regional Director on February 8, 2007. A public meeting was held in Kodiak on March 22, 2007, where the Refuge staff discussed the recently approved management plan and sought public input regarding plan implementation. Also, discussed was a proposal to increase Refuge cabin user fees. The public recommended the Refuge focus on opening Connecticut Creek to bear-viewing first and had no objection to increasing cabin fees. (Getman/Pyle/Wheeler/VanHatten)

- 15.4 Continue the Refuge Information Technician program to enhance information exchange with local communities on refuge issues, particularly those dealing with subsistence and bear management (such as bears killed in defense-of-life-or-property).

Refuge Information Technician has been very active in coordinating with villages regarding subsistence hunting for deer, elk, bears, and waterfowl, sea otters, brown bears, and Salmon Camp. (Lee)

- 15.5 Participate in interagency activities, cooperative agreements, data sharing, and sharing of equipment and personnel to accomplish mutual management goals and objectives.

Refuge partnered extensively with ADF&G, USGS, Koniag, Inc., Alaska State Troopers and others to accomplish biological studies, land management activities, law enforcement, and provide visitor services.

- 15.6 When requested, partner with community members to address bear-management concerns at villages, remote cabins, and lodges.

Attended community meetings in Port Lions regarding completion of a bear-proof fence around its municipal landfill. Funding for this important project was supplied by the Service through its Tribal Wildlife Grant Program. The refuge and ADF&G routinely have provided technical support to the Port Lions Tribe regarding the fence development since 2005. A bear safety class was presented to school age children. (Lee/Leacock/Saito)



Larry VanDaele (ADF&G) and Refuge Biologist Bill Leacock celebrate success of fencing the Port Lions landfill through a Tribal Wildlife Grant.

GOAL 16: Provide for safe, efficient, cost effective administration of refuge facilities and programs.

- 16.1 Provide for a permanent and seasonal staffing pattern necessary to meet existing program management needs as identified in approved management plans.

Pilot Butch Patterson retired in October, 2006. With this retirement, there was concern that with the current budget situation, the Region might absorb the funding for this position to offset rising costs. However, with a new visitor center to open in 2007, the station had a need to hire an environmental education specialist, maintenance worker, and custodian. A proposal was submitted and approved by the RO to fill these three positions on a full-time basis and not refill the pilot position. Susan Knoth was hired as a training instructor, David King was hired as a maintenance worker, and the custodian position will be advertised early in FY2008.

Three vacant positions were also filled in FY 2007 – Jim Traub, Refuge Officer/Pilot; Gary Wheeler, Refuge Manager; and Brian Glaspell, Supervisory Park Ranger.

Two positions were reclassified which led to title changes and salary increases. The GS-4 Office Automation Assistant (Cinda Childers) was converted to a GS-5 Refuge Clerk and the GS-6 Administrative Technician position (Gerri Castonguay) was converted to a GS-7 Administrative Support Assistant.

Deputy Manager Mike Getman served as acting Refuge Manager from the beginning of the FY until manager Gary Wheeler reported for duty in December.

- 16.2 Oversee AWP and budget process including budget tracking, automated data processing, document preparation and control, time and attendance, travel administration, personnel records, and purchasing.

Managed AWP and budget entry/tracking/reconciling process. Provide manager with monthly updates upon completion of monthly reconciliation. Budget planning meeting held in December 2006 to plan activities for 2007 field season. Expended over 99% of allocated budget. Kodiak IT network was highly dependable with only a few minor/short term outages. Travel administration, personnel records, and purchasing consistently met administrative requirements. (Castonguay)

Document preparation, time and attendance, travel administration, personnel records, and purchasing were accomplished in accordance with regulations and guidance. (Castonguay/Childers)

- 16.3 Work with ITRM to provide a seamless, robust, secure ITRM system useful to Kodiak users and compliant with national and regional mandates.

Refuge's computer system performed well. Worked with ITRM to process any necessary updates required by Service. No systems needed replacing. (Castonguay)

A new telephone system for Refuge headquarters to be integrated with the new visitor center was acquired and scheduled to be installed in October 2007. (Wheeler/Childers)

Cell phone service with expanded capabilities was acquired and provided to key staff. (Wheeler/Childers)

Refuge began migration from Global Star and Iridium satellite phone service to Iridium alone which has provided more reliable service. (Wheeler)

- 16.4 Provide a pro-active safety program in accordance with the Station Safety Plan and other Service and OSHA policies and regulations.

Received heavy equipment safety training for backhoe/loader, forklift, skidsteer loader, and agricultural tractor, (Lewis/Banyas) and forklift (Traub).

Held a Refuge Safety and Cleanup Week April 23-27 in which all staff members participated in events and projects too numerous to mention. (Staff)

Installed carbon monoxide and smoke detectors in all seven public use cabins and two administrative sites and insured fire extinguishers were in proper working order. (Traub/Banyas)

Insured all Refuge personnel viewed safety video, received first aid/CPR training and fire extinguisher training. (Banyas)

Installed MSDS stations at headquarters building and hangar. (Banyas)

Adhered safety stickers to all fuel storage tanks in Kodiak to clearly indicate flammability hazards. (Banyas)



Refuge Headquarters Complex

Purchased hearing protectors, goggles, safety glasses, gloves, and chainsaw chaps. (Banyas)

Purchased and installed studded snow tires on the five most often used Refuge vehicles. (Banyas)

Initiated replacement of deteriorated 400-gallon aviation fuel tank at Lilly Lake. (VanHatten/Banyas)

- 16.5 Develop and implement an aviation program to support Refuge biological, visitor services, law enforcement, and maintenance programs.

The Refuge is assigned one Husky A-1B and one DHC-2 Beaver.

A Refuge Aviation Management Plan was drafted in the spring of 2007. Comments are being gathered and the plan should be finalized during FY-2008. (VanHatten)

Kevin VanHatten received his blue card for the Husky and C-206 in May 2007 and for the Beaver in June 2007. Traub completed training and received his blue card to fly the Husky in July 2007. This was quite a lengthy and expensive process, but was finally completed, thanks to the help of numerous flight instructors and travel.

Refuge pilots provided aircraft support for many programs and projects (i.e., bald eagle surveys, intensive aerial bear surveys, bear stream surveys, bear behavior studies at Connecticut Creek and Karluk River, mountain goat surveys, various bird projects on Karluk and Frazer Lakes, coastal bird surveys, VIP orientation trips, maintenance work at cabins, and law enforcement patrols).

Kevin VanHatten flew 161 hours (59 hours Husky A-1B and 102 hours DHC-2 Beaver) and Jim Traub flew 133 hours in the Husky. (VanHatten/Traub)

In summary, this was a challenging year for the refuge to complete mission flights ourselves due to pilot (as confirmed with pilot certification dates indicated above) and plane availability (the Beaver and Husky were in Anchorage for major repair work and training uses for most of the year with both planes in Kodiak and available for our use only from June - September). Our preliminary Annual Work Plan included a proposed 545 hours of flight support. About 60% was completed with station pilots and aircraft; the remainder was completed by chartered flights, borrowed planes/pilots from other stations, or projects were cancelled due to weather, budget, or pilot/plane availability. (VanHatten/Traub)



Husky at Deadman Bay

An automated program was designed and installed to record scheduled aircraft flights. A protocol was also established where an employee needing a flight completed an Aircraft Request Form and submitted it to Logistics Coordinator Monzon. It was then logged into the system. This system allows anyone to view the existing schedule and obtain information on aircraft and pilot availability to base their flight request on. This also allows for improved coordination and efficiency of flights. (Monzon)

- 16.6 Conduct refuge LE program in cooperation with community, state and federal authorities with emphasis on prevention and education.

Refuge patrols (see 10.3) were coordinated and conducted in cooperation with Alaska State Troopers (AST). AST was an essential partner in the investigation and citing of an illegal foreign sport fish guide operating on the refuge. Several other cases were turned over that were more appropriate for them to handle. The refuge was also asked to provide a program to US Coast Guard (USGS) helicopter and airplane pilots on the Memorandum of Agreement between the Fish and Wildlife Service, Alaska Department of Fish and Game, and USCG that outlines responsibilities of each party to minimize aircraft impacts on wildlife. One off-refuge marine mammal case was transferred to special agents for investigation; the refuge provided logistics and assistance with an undercover special agent patrol on the road system; and RO Getman assisted SA Marek on the investigation of a polar bear harvested under subsistence regulations. Numerous phone inquiries to the refuge office were received and responded to concerning hunting, fishing, subsistence, and refuge regulations. (Getman/Traub)

Refuge responded to a request from the Native Village of Karluk public safety officer for coordination and assistance with bear safety education. We will meet with Karluk officials in early FY-2008 to determine what assistance is needed. (Getman)

- 16.7 Maintain and replace equipment and facilities and effectively use and update real and personal property records, SAMMS, and MMS databases.

Initiated and supervised the rehabilitation of the Triplex crawlspace, parking lot, removal of underground storage tanks, and the construction of a gravel storage pad. (Banyas)

Hired David King as full time maintenance worker. (Banyas/Getman)

Disassembled and saved for reconstruction as a new public use cabin the old Triplex storage shed and began construction of new Triplex storage building. (King/Banyas)

Repaired extensive structural rot damage to Quarters #2, replaced sidewalk, and rehabilitated interior, cleaning, repainting and replacing all floor coverings. (Schneider/King/Castonguay/Childers/Pattinson/Traub/Banyas)

Assisted with gray whale skeleton restoration for display in the new visitor center. (Banyas)

Rehabilitated interior of Quarters #5, reinforcing floor framing, cleaning, painting, and replacing all floor coverings. (Saito/Wheeler/Castonguay/Childers/Pattinson/Banyas)

Serviced all vehicles and heavy equipment. (King/Banyas)

Initiated and supervised a heating and ventilation study and subsequent replacement of furnaces in the headquarters/visitor center building, and the replacement or reconditioning of boilers and plumbing in all Quarters buildings. (Banyas)

Received Contracting Officer's Technical Representative training then served as temporary COTR for the new visitor center construction. (Banyas)

Initiated and supervised a study of indoor air quality of all Quarters buildings. (Banyas)

Upgraded the aviation fuel shed at Camp Island with explosion proof electrical system and lockable exterior hose reel, grounding reel, fuel flow meter and shutoff valve. (Banyas)

Supervised volunteers in the rehabilitation of the Little River Lake public use cabin and construction of a new outhouse. (Banyas)

Repaired and painted exterior of the Panabode and boat house at Camp Island. (Banyas)

Supervised rehabilitation of exterior of Hangar including sandblasting, painting, and replacement of doors, gutters and downspouts. (Banyas)

Prepared excess property: '81 Dodge, '86 Chevy, and '91 Chevy pickups, '92 Dodge van, and '83 Clark Bobcat with attachments for disposal. (King/Childers/Banyas)

Ordered, received and transported to Kodiak new 2006 Chevy plow truck. (Traub/Banyas)



With near a near record level of snowfall during the winter of 2006-07 our maintenance team and equipment were pressed to the limit.

Resurfaced roads and parking lots and replaced culverts at Refuge Headquarters. (King/Banyas)

Captured in SAMMS all costs of maintenance, repairs, and supplies for all Kodiak NWR facilities which include, headquarters, shop, hanger, quarters, triplex, and Lily Lake facility. Captured costs of repairs, materials and supplies for all Public Use cabins and other field operation bases. This includes all utilities such as electricity, heating fuel, propane, water, sewer, and trash removal. The labor costs for all employees and volunteers are also accounted for in SAMMS. Also included are repairs, supplies, materials, utilities and labor costs for the boats, outboards and URSA Major II. (Childers)

All real and personal property records have been updated; replacement of any vehicles and any excessed property has been documented and sent to the Property Specialist in the Anchorage office. (Childers)

The semi-annual vehicle report which includes; property number, license number, odometers reading, fuel usage, fuel cost, direct and indirect cost for each individual vehicle was accomplished on time and has been sent to the Property Specialist in the Anchorage office. (Childers)

Completed the Annual Energy and Water Conservation Report for FY07 for each organizational code Kodiak NWR has (4) which includes; cost and units of electricity, cost and gallons of heating fuel, cost and units of propane, cost and gallons of aviation fuel, unleaded fuel, diesel, and jet fuel used. (Childers)

- 16.8 Complete annual RAPP report with accuracy, consistency, and timeliness.

FY07 Report completed on time. See Appendix for RAPP workbook. (Glaspell/Refuge Staff)

- 16.9 Manage the Refuge special use permit (SUP) program to ensure that refuge uses are appropriate, compatible, and have minimal impact upon refuge resources.

Began the process of updating all permit special conditions to reflect changes found in the final Refuge CCP and Compatibility Determinations. (Monzon)

- 16.10 Maintain file system in accordance with Service standards.

Refuge files were inspected by Regional Filing System Coordinator Chuck Young and determined to be organized in excellent fashion.

- 16.11 Establish centralized, data management system of administrative, public use, and biological data that is accessible by all staff and the public as appropriate.

No work completed during 2007.

- 16.12 Manage the Refuge's digital and slide images to facilitate their effective use in Refuge programs and by the Public.

No work completed during 2007.

- 16.13 Utilize the Refuge vessel Ursa Major II and other watercraft in support of Refuge programs and activities.

M/V URSA MAJOR II assisted with annual fuel haul to re-supply Karluk Lake field headquarters tank. A total of 24 drums of avgas and six 100-lb propane cylinders were transported to Larsen Bay then transferred to Refuge Beaver for flight to Camp Island. (Zwiefelhofer/Lewis)

In June, M/V URSA MAJOR II transported and housed a regional Realty team conducting an inspection and appraisal of 25 commercial fishing set-net sites along the west side of the refuge. (Zwiefelhofer/Lewis)

A total of 17 vessels were used from rivers and interior lakes to coastal areas around Kodiak. Watercraft were utilized in support of over 11 different projects types covering over 1,200 miles in and around Kodiaks waters by licensed and unlicensed operators year round. Vessels and motors were serviced and maintained by Jeff Lewis.

Boats used and project types:

- 2-10' Rafts with 9.9/15 hp motors - LE and Public use
- 6-12' Achilles kayaks - LE/ Harlequin Duck survey
- 1-14' Achilles raft with 30 hp motor – waterfowl banding
- 1-13' Achilles raft with 15 hp motor – waterfowl banding
- 1-18' Lund with 30 hp motor – Camp Island waterfowl banding and logistics
- 1-16' Lund with 15 hp motor – Camp Island waterfowl banding/weeds/bear camp
- 1-18' Lund with 40 hp motor – waterfowl banding project
- 1-19' Aluminum skiff with 90 hp motor – Camp Island/VIP trips/lake surveys
- 1-16' UM2 skiff with 90 hp motor – oystercatcher telemetry/LE patrols-Chiniak Bay
- 1-17' UM2 skiff with 90 hp motor – coastal surveys/LE patrols/whale ID biopsy
- 1-48' Ursa Major II-waterbird and coastal surveys/fuel haul/waterfowl banding/LE/set net site checks



The M/V Ursa Major II is a necessary asset for accomplishing field work in marine waters around Kodiak Island.

- 16.14 Continue to acquire private lands inside the refuge boundary in accordance with the Land Conservation Plan as opportunities arise from willing sellers.

Two parcels were acquired – the Malutin property (137 acres) and a 10-acre parcel from the Kodiak Island Borough.

Refuge Manager Wheeler testified twice at Borough Assembly meetings in support of the Refuge acquiring a 10-acre tax foreclosed property from the Borough.

16.15 Assist the Regional Office realty division when land actions or program action activities occur.

The refuge was actively involved with the Native Veterans Allotment program. Six applicants were determined to be eligible for selection of land. Each applicant submitted a request for two 80-acre tracts. These tracts were analyzed by the staff and consistency determinations were issued. For the initial 12 parcels – three received consistent determinations while the other nine parcels were determined inconsistent. This led us into the alternate site selection process. Rather than have applicants again select parcels on their own, the refuge team identified refuge areas without high value wildlife habitat values (heads of bays, high bear use areas, anadromous streams) and contained land characteristics desired by applicants (located on salt water, protected anchorage, freshwater source, flat area suitable for cabin site, not too steep terrain). By fiscal year end, seven alternate sites were determined to be consistent, while the other two parcels remain pending as the applicant has not pursued their alternate site selection prerogative. Also, Refuge staff responded to two Congressional inquiries where an applicant sought assistance with their inconsistent decisions. Responses were provided and the applicant ceased pursuing this approach. (Getman)